

## AMENDMENTS TO THE CLAIMS

1. (CURRENTLY AMENDED) An apparatus comprising:

a first circuit configured to generate a control signal in response to (i) a measurement of inter-picture motion between a current picture and a first reference picture and (ii) a  
5 predetermined threshold value; and

a second circuit configured to select ~~between~~ either said first reference picture ~~and~~ or a second reference picture as a better reference picture for subsequent motion estimation on said current picture in response to said control signal.

2. (ORIGINAL) The apparatus according to claim 1, wherein:

a parity of said first reference picture is opposite to a parity of said current picture; and

5 a parity of said second reference picture is the same as said parity of said current picture.

3. (ORIGINAL) The apparatus according to claim 1, wherein:

a parity of said first reference picture is the same as a parity of said current picture; and

5           a parity of said second reference picture is opposite to  
said parity of said current picture.

4.    (ORIGINAL)   The apparatus according to claim 1,  
further comprising:

        a memory configured to store said current picture, said  
first reference picture and said second reference picture.

5.    (CURRENTLY AMENDED)   The apparatus according to  
claim 1, wherein said second circuit further comprises:

        a multiplexer circuit configured to select ~~between~~ either  
said first reference picture ~~and or~~ said second reference picture  
5   for presentation to a motion estimation circuit based upon a state  
of said control signal.

6.    (ORIGINAL)   The apparatus according to claim 1,  
further comprising:

        a motion estimation circuit configured to generate one or  
more motion vectors in response to said better reference picture  
5   and said current picture.

7.    (ORIGINAL)   The apparatus according to claim 1,  
wherein said first circuit further comprises:

a circuit configured to generate a plurality of coarse motion vectors for said current picture based upon said first reference picture.

8. (CURRENTLY AMENDED) The apparatus according to claim 7, wherein said first circuit further comprises:

a first analysis circuit configured to generate a said measurement of inter-picture motion in response to said coarse motion vectors.

9. (CURRENTLY AMENDED) The apparatus according to claim 8, wherein said first circuit further comprises:

a second analysis circuit configured to generate said control signal in response to said measurement of inter-picture motion and said predetermined threshold value.

10. (ORIGINAL) The apparatus according to claim 8, wherein:

said first analysis circuit is configured to perform a cluster analysis on said coarse motion vectors.

11. (ORIGINAL) The apparatus according to claim 1, wherein said apparatus is part of an encoder circuit.

12. (CURRENTLY AMENDED) An apparatus comprising:

means for generating a control signal in response to (i)  
a measurement of inter-picture motion between a current picture and  
a first reference picture and (ii) a predetermined threshold value;  
5 and

means for selecting ~~a better reference picture for motion~~  
~~estimation from~~ either said first reference picture ~~and~~ or a second  
reference picture as a better reference picture for subsequent  
motion estimation on said current picture in response to said  
10 control signal.

13. (CURRENTLY AMENDED) A method for performing motion  
estimation in a video encoder comprising the steps of:

generating a control signal in response to (i) a  
measurement of inter-picture motion between a current picture and  
5 a first reference picture and (ii) a predetermined threshold value;  
and

selecting ~~a better reference picture for motion~~  
~~estimation from~~ either said first reference picture ~~and~~ or a second  
reference picture as a better reference picture for subsequent  
10 motion estimation on said current picture in response to said  
control signal.

14. (ORIGINAL) The method according to claim 13, wherein:  
a parity of said first reference picture is opposite to  
a parity of said current picture; and

a parity of said second reference picture is the same as  
5 said parity of said current picture.

15. (ORIGINAL) The method according to claim 13,  
wherein:

a parity of said first reference picture is the same as  
a parity of said current picture; and

5 a parity of said second reference picture is opposite to  
said parity of said current picture.

16. (ORIGINAL) The method according to claim 13,  
further comprising the step of:

storing said current picture, said first reference  
picture and said second reference picture in a picture memory.

17. (ORIGINAL) The method according to claim 13,  
further comprising the step of:

generating one or more motion vectors in response to said  
better reference picture and said current picture.

18. (ORIGINAL) The method according to claim 13, further comprising the step of:

generating a plurality of coarse motion vectors for said current picture based upon said first reference picture.

19. (CURRENTLY AMENDED) The method according to claim 18, further comprising the step of:

generating a said measurement of inter-picture motion in response to said coarse motion vectors.

20. (CURRENTLY AMENDED) The method according to claim 19, further comprising the step of:

generating said control signal having (i) a first state in response to said measurement of inter-picture motion exceeding  
5 said predetermined threshold value and (ii) a second state in response to said measurement of inter-picture motion not exceeding  
said predetermined threshold value.

21. (ORIGINAL) The method according to claim 19, further comprising:

performing a cluster analysis on said coarse motion vectors.

22. (ORIGINAL) The method according to claim 13, wherein said current picture, said first reference picture and said second reference picture each comprise a field picture.

Please add the following new claim:

23. (NEW) The method according to claim 13, wherein said predetermined threshold value is programmable.